

THE ROLE OF SYSTEM TRUST AND RISK PERCEPTION IN PROVIDING ASSETS FOR COLLABORATIVE CONSUMPTION SCHEMES

ALAIN DECROP (*corresponding author*)

*Department of Management Sciences, Université de Namur
Namur, Belgium
alain.decrop@unamur.be*

ANTJE RICARDA HELENA GRAUL

*Department of Marketing and Strategy, Jon M. Huntsman School of Business
Utah State University
Logan, Utah, U.S.A.
antje.graul@usu.edu*

ABSTRACT

The emergence of the sharing economy has fueled the development of collaborative consumption (CC) schemes around the world. The promise of non-ownership particularly in the peer-to-peer environment makes it attractive for a plethora of users to engage in practices such as carsharing and the rental of private holiday accommodations or tool supply from their peers. Yet while financial and environmental benefits for both users and providers do exist, providers of private goods may be reluctant in many cases to offer their belongings for sharing. This study thus draws on social exchange theory to examine the key role of generalized, barter- and money-balanced reciprocity as a pivotal scheme characteristic that predicts the intention of providers to participate in peer-to-peer CC schemes. As such, the findings from two empirical studies provide evidence that consumers are most eager to provide their personal assets against a reciprocal compensation where perceived risk functions as a mediator of the explained effect. Market mediation is also used to show that CC schemes are more attractive to consumers when facilitated by a non-profit market intermediary (vs. a for-profit intermediary), emphasizing the propensity of consumers to escape the market while sharing. A mechanism in which system trust mediates the proposed relationships is therefore suggested.

KEYWORDS

sharing economy; collaborative consumption; trust; reciprocity

INTRODUCTION

Also known as the “collaborative economy,” the sharing economy refers to the temporary access to products or services with the collaboration of other consumers and/or intermediaries (Decrop, Del Chiappa, Mallargé, & Zidda, 2018). It is a new paradigm largely supported by peer-to-peer online platforms that bring together private providers and users of goods or services. Such an economy has developed rapidly in the last decade, supported by societal, economic, and technological factors (Botsman & Rogers, 2011). A report by PwC predicts that 5 key sharing sectors (P2P finance, online staffing, P2P accommodation, car sharing, and music/video streaming) have the potential to increase global revenues from \$15 billion in 2014 to \$335 billion by 2025 (PwC, 2015). In the United States alone, familiarity with sharing economy services has grown tremendously from 47% in 2015 to 83% in 2018, and the number of sharing economy users is likely to grow from 44.8 million users in 2016 to 86.5 million in 2021 (eMarketer, 2018). The promise of non-ownership has made it attractive for a plethora of consumers to engage in carsharing (e.g., Drivy) or the rental of private holiday accommodations (e.g., AirBnB) or tool supply (e.g., Neighbourgoods) from their peers (Hamari, Sjöklint, & Ukkonen, 2016; Zervas, Proserpio, & Byers, 2017). Champions such as Uber or AirBnB represent huge market capitalizations of almost \$72 billion and \$38 billion respectively (Forbes, 2018).

Research on the sharing economy has recently attracted interest from many disciplines including economics (e.g., Martin, 2016), information technology (e.g., Acquier, Daudigeos, & Pinkse, 2017; John, 2013), transportation (Cohen & Kietzmann, 2014), environmental sciences (Wu & Zhi, 2016), and tourism (e.g., Dredge & Gyimóthy, 2015). Authors have also begun to investigate the economic, environmental, and social impacts of sharing within different frameworks (e.g., Palgan, Zvolska, & Mont, 2017).

Is The Sharing Economy More Sustainable?

Early research outlets have praised the sharing economy for promoting a more sustainable way of living and running businesses through the favoring of access over ownership (Botsman & Rogers, 2011; Decrop et al., 2018; Heinrichs, 2013; Martin, 2016; Stokes, Clarence, Anderson, & Rinne, 2014; Woskow, 2014). They present the sharing economy as a transformative force that enhances shared access and higher

levels of utilization of already produced but underutilized goods: “it often extends products’ life span through second-hand markets, thereby theoretically reducing the need for production of new goods and thus for using virgin resources” (Palgan et al., 2017: 70). Nijland and van Meerkerk (2017), for example, find that a person using carsharing is likely to generate 30% less car ownership, 15–20% fewer car kilometers, and 13–18% lower CO₂ emissions compared to an individual who already owns a car. A number of other social benefits of the sharing economy have also been put into light, including cheaper access to services, altruistic non-reciprocal exchange, collaboration, trust, and social bonding among individuals (Bauwens, 2005; Belk, 2010; Benkler, 2017). Finally, the sharing economy is presented from an economic perspective as an opportunity for many to either earn or save money by escaping the tyranny of established marketplaces through decentralized peer-to-peer networks: “the sharing economy is seen as supporting strong emancipatory ideals for individuals and communities by promoting new types of organizations and exchange” (Acquier et al., 2017: 8–9).

More recent studies, however, have qualified the premise that the sharing economy is (more) sustainable per se compared to the conventional economy. A recent special issue of the *Environmental Innovation and Societal Transitions* journal that was devoted to sustainability perspectives on the sharing economy concluded, for instance, that

the early claims of the inherent sustainability of the sharing economy are ill-founded. Not only are many providers and users primarily motivated by the economic gains to be made by trading on sharing platforms, the environmental effects may anyway well be rather limited due to increased demand triggered by lower prices as well as various rebound effects. (Frenken, 2017: 2)

Indeed, empirical research suggests that users’ environmental motivations are often of secondary importance compared with economic reasons (Böcker & Meelen, 2017; Wilhelms, Henkel, & Falk, 2017). Sharing initiatives have been attacked for stimulating consumption and providing access to goods that people could not afford previously (Schor, Fitzmaurice, Carfagna, Attwood-Charles, & Poteat, 2016; Cohen, 2006), and companies such as Uber or Airbnb are often presented as framing a 2.0 capitalism that shapes unregulated marketplaces and unfair competition, facilitates tax avoidance, and recreates the inequalities of the capitalist markets by transferring risks to consumers (Martin, 2016; Schor et al., 2016). In conclusion, the sharing

economy shows many faces and an internally complex nature that aggregates a number of paradoxes around environmental, social, and economic promises.

RESEARCH PROBLEM

The emergence of the sharing economy has fueled the development of collaborative consumption schemes around the globe (Sacks, 2011). We define collaborative consumption as “people coordinating the acquisition and distribution of a resource for a fee or other compensation” (Belk, 2014: 1597) and where the resource being shared can be owned either by a business (business-to-consumer sharing) or a private consumer (consumer-to-consumer sharing) (Graul, 2017). Consumer-to-consumer exchanges are often facilitated by mediating online platforms that bring provider and user together. A triadic, platform-based environment in which consumers act as “micro-entrepreneurs” (Kumar, Lahiri, & Dogan, 2018) thus emerges, resulting in a multi-billion-dollar collaborative consumption industry (Sacks, 2011). Yet while prior research has begun to examine consumers’ motivation to engage in collaborative consumption as a *user* or *renter* (e.g., Bardhi & Eckhardt, 2012; Decrop & Degroote, 2014; Möhlmann, 2015), research investigating drivers for consumers’ participation in peer-to-peer short term rentals as a *provider* remains scarce. The latest sharing economy developments reveal, however, that there is a strong need to attract providers rather than users and have the former share their assets. Airbnb, for instance, can maintain its business operations only by securing sufficient consumer listings on its website; it counts over 200 million guest arrivals worldwide yet only 4 million listings are registered (AirBnB, 2017). The company aimed to address this imbalance by introducing a referral credit for which consumers are rewarded nearly twice the amount for a host (EUR 58) compared to a guest (EUR 31) referral (AirBnB, 2017). Attracting providing consumers to the sharing economy thus remains a managerial challenge. Consequently, the goal of the present research is to shed light into this opportunity and elucidate what role platform characteristics play in motivating consumers to provide their personal assets for sharing in collaborative consumption schemes—and which of these may hinder their motivation.

The paper will first review current consumer-to-consumer collaborative consumption schemes. Second, the authors will introduce a theoretically-driven classification of such schemes into three distinct reciprocity types (generalized,

barter-balanced, and money-balanced) and two forms of market intermediary (for-profit and non-profit). Third, the primary data of two experimental studies will be presented to investigate how reciprocity and market intermediary influence the intention to provide assets for sharing in collaborative consumption schemes through a process involving both system trust and risk. The findings of this research thus contribute to existing literature by showing that peer-to-peer sharing scheme characteristics such as types of reciprocity and market intermediary significantly impact upon consumers' intention to provide objects for sharing. Both a cognitive (risk perception) and an affective (system trust) route are proposed to account for the theorized impact. The paper will conclude with theoretical contributions and managerial implications that illustrate avenues for attracting private consumer sharing which may benefit public policymakers and managers of sharing platforms.

THEORETICAL FRAMEWORK

The Role of Reciprocity

Social exchange theory (Blau, 1964) is a useful framework for examining the role of reciprocity in consumer-to-consumer exchanges. Thus, while prior research suggests that sharing may involve reciprocal expectations from users (Belk, 2010), the authors assume that reciprocal anticipations may also play a crucial role for providers when sharing their assets. Indeed, the emerging literature on the sharing economy (Ikkala & Lampinen, 2015) indicates, first of all, that the possibility to earn money is an important factor for igniting participation in a sharing scheme and, secondly, that the presence of money plays a central role by providing the exchange with a structure and formality that contributes to the participant's sense of control and ease of participation. Scholars argue that social exchange occurs when both parties find themselves to rely on each other. They distinguish between two types of reciprocity (Sahlins, 1972), namely, 1) generalized reciprocity, in which the giver does not expect any direct return from the receiver, and 2) balanced reciprocity, in which an equal return is expected. Bardhi and Eckhardt (2012) argue that generalized reciprocity is close to Belk's concept of (genuine) sharing which does not include reciprocal expectations (monetary fees or the exchange of other assets) and is more likely to arise within structures with high levels of confidence such as families. Benkler (2017) refers to this as non-reciprocal pro-social behavior. Balanced reciprocity, in contrast, may be present in a plethora of

transactions between individuals due to the natural human tendency to expect a return when giving (Belk, 2010). This paper specifically introduces two types of balanced reciprocity: money-balanced (involving payment of a monetary fee as return) and barter-balanced (defined as access to another good within the scheme as return).

It may be reasonable to assume, then, that the presence of compensations significantly increases consumers' willingness to share their private goods for CC. Indeed, Gollnhofer and colleagues' recent paper on perceptions of fairness (2016) shows the omnipresence of the motto "If you want to get something, you also have to give" (228) based on empirical evidence gained from studying Napster users. Habibi, Kim, and Laroche (2016) most interestingly introduce a sharing score that is based on the same dialectic; it specifically weighs pure sharing versus pure exchange characteristics that range from Couchsurfing to Zipcar. They find with regard to the user perspective that cost and utility factors are to a great extent particularly able to explain the variance in participation likelihood for users. The present paper thus argues in addition that clear expectations of reciprocity exist for providers when it comes to participating in CC; more specifically, that:

H1: Consumers' intention to provide their private possessions for sharing is at the highest in money-balanced schemes followed by barter-balanced ones, and is at the lowest in generalized schemes.

The Role of Market Intermediary Type

In addition to reciprocity, the type of intermediary operating within peer-to-peer sharing platforms is expected to play a crucial role in shaping consumers' intentions to share. While a review of current schemes suggests that it is the role of a for-profit market intermediary in most cases to offer a suitable infrastructure for bringing providers and users together, Bardhi and Eckhardt (2012) suggest that sharing schemes may fit different types of market intermediaries, from for-profit (e.g., Airbnb) to non-profit (e.g., Couchsurfing). This study, therefore, contributes over and above this first distinction by introducing not only three forms of reciprocity but also two distinct types of intermediaries that are expected to impact consumers' intentions to provide their private possessions for sharing. As such, it is assumed that consumers are more willing to provide their private goods in peer-to-peer CC schemes where the market intermediary has no intention to make

profit. This is supported by prior literature (Sibai, De Valck, Farrell, & Rudd, 2015), suggesting that interactions within online communities of consumption may match different governance structures that range from market to clan. Market governance is based on the ideas of exchange (profit), transactional interaction, negotiation, and direct reciprocity whereas clan governance obeys principles of sharing (non-profit), communal interaction, peer pressure, and shared identity. It may be assumed, then, based on the literature on CC (Bardhi & Eckhardt, 2012; Decrop & Degroote, 2014; Hellwig, Morhart, Girardin, & Hauser, 2015), that sharing scheme participants are more likely to escape the market and adhere to clan governance. From this theoretical background, it can be suggested that:

H2: A non-profit (for-profit) market intermediary strengthens (weakens) consumers' intentions to provide their private possessions for sharing.

The Mediating Effect of System Trust and Perceived Risk

Both system trust and perceived risk are involved in social exchange theory: "Since there is no way to assure an appropriate return for a favor, social exchange requires trusting others to discharge their obligations" (Blau, 1964: 94). Indeed, while Finley (2013: 2) suggests that "trust is the enabling factor inherent within all sharing-sector activities," other studies support the idea that a high level of perceived risk may hinder consumers' intention to provide items (Bardhi & Eckhardt, 2012; Gefen, Rao, & Tractinsky, 2003). Molm et al. (2000) suggest that reciprocal exchanges enable trust while negotiated exchanges with binding agreements help to reduce risk. The academic literature provides different conceptualizations of the relationship between the two constructs of trust and risk (for a review, see Gefen et al., 2003). In light of a plethora of studies on e-commerce that demonstrate that trust and risk affect behavior independently (Gefen, 2000; Chircu, Davis, & Kauffman, 2000), the present paper assumes two distinct routes to explain the effects of reciprocity and market intermediary type on consumers' intention to provide possessions for sharing (see Figure 1), i.e., consumers' level of system trust (emotional/affective route) and of perceived risk (rational/cognitive route).

Molm and colleagues (2000) contend that all forms of social exchange involve a certain level of uncertainty and risk. Much of this uncertainty vanishes, however, once partners agree on the terms of an exchange. This suggests that perceived risk is likely to be higher for generalized reciprocity, where participants "initiate exchange

without knowing what they are getting in return, and with no guarantee of the other's reciprocity" (Molm, Takahashi, & Peterson, 2000: 1400), than for balanced reciprocity, where providers are aware of a specific return for their provision. In line with the assumptions of social exchange, then, a transaction that receives no compensation in return will naturally evoke a higher perception of risk. Money, in contrast, is generally presented as the best way to reduce perceived risk in reciprocal exchange: "the existence of money guarantees a static double coincidence of wants and therefore supports the efficient trade of contractible goods in all instances" (Prendergast & Stole, 2001: 1); it is also likely to facilitate social exchange in non-contractible services (as is the case with many CC schemes) through the use of voluntary transfers. Simmel (1990) suggests that money affords the precision and calculability in social relations which support personal autonomy. Ikkala and Lampinen (2015: 9) argue further in the framework of peer-to-peer accommodation that "the presence of clear-cut monetary transactions may contribute to hosts' sense of control by making it easier for the exchange partners to adopt a shared definition of the exchange situation." In line with such arguments, then, this paper suggests that:

H3a: Reciprocity type influences the level of perceived risk when providing assets in sharing schemes, with balanced (monetary) reciprocity being more effective than generalized reciprocity in reducing risk.

H3b: Perceived risk negatively impacts consumers' intentions to provide their private assets for sharing.

Trust, on the other hand, appears to play a major role in providing assets for sharing and was referred to as "the key to the potential market for nonownership services" (Ndubisi, Ehret, & Wirtz, 2016: 262). A large number of authors (Bialski, 2009; Decrop & Degroote, 2014; Finley, 2013; Ikkala & Lampinen, 2015) have carried out ethnographic research showing that trust is a key factor in enabling participation in hospitality networks such as Airbnb and Couchsurfing. In a study done in the U.S., 67% of respondents in a survey conducted for Campbell Mithun expressed trust concerns as the primary barrier to using a sharing economy platform (Campbell Mithun, 2012). Trust in the system has become, in the environment of "digitally mediated sharing" (Rudmin, 2016: 198), a pivotal factor for enabling transactions between unknown peers, transactions that do not have a concrete

reference point at the time the decision was made to provide assets for sharing. Indeed, Benlian and Hess (2014) demonstrate a positive relationship between system trust and participation in online communities. Thus, as novel peer-to-peer schemes rely mainly on digital platforms to bring together users and providers who are unfamiliar with each other, the present study extends previous assumptions by expecting the level of trust in the system to be particularly decisive in predicting consumers’ intentions to provide their private assets for sharing. More specifically, it assumes that consumers are likely to prefer non-profit market intermediaries for peer-to-peer transactions as peers tend to be trusted more and the overall credibility of commercial cues is generally lower than that of non-commercial sources of information (Nolan, 1976). Thus:

H4a: Market intermediary type influences the level of system trust when it comes to providing assets in sharing schemes, with non-profit schemes being more trusted than for-profit intermediaries.

H4b: System trust positively impacts consumers’ intentions to provide their private possessions for sharing.

The paper’s conceptual framework and major hypotheses are summarized in Figure 1.

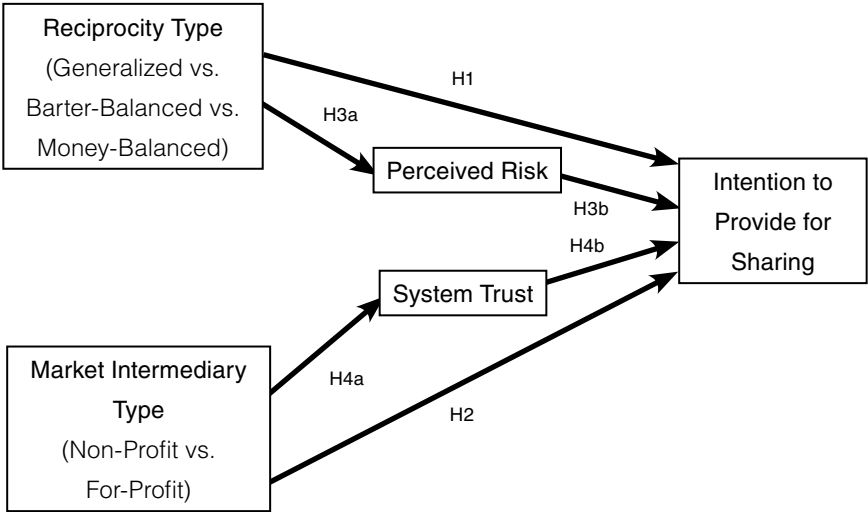


Figure 1: Conceptual framework.

METHODS AND RESULTS

Study 1

In our first study, we developed an experimental design which allowed us to examine the different effects of the three forms of reciprocity (generalized vs. barter-balanced vs. money-balanced) on the intention to provide one's personal assets for sharing. Three different text-based stimuli were deployed; these included a short description of a peer-to-peer sharing system that involved access to tangible items such as household appliances and tool kits (e.g., a drill, a tent, and a bike) from other peers over an online sharing platform.

The general description of the sharing system, which was inspired by real-life examples of online sharing platforms (e.g., *neighbourgoods.com*), was held constant while the type of reciprocity was manipulated by describing three different forms of compensation that the sharing system would offer to the providers of the objects (example scenarios can be found in the appendix). Respondents who were exposed to the generalized reciprocity condition of the vignette were led to believe that "the participant that provides the object(s) would not get any compensation for such sharing, that the provision would be completely for free." Respondents for the barter-balanced reciprocity condition read that "as compensation for such sharing, the participant that provides the object(s) would have the option to similarly borrow some of the selected objects that other members have available for short-term lending." The third type of reciprocity, presented as money-balanced, involved the following description: "As compensation for such sharing, the participant that provides the object(s) would receive the payment of a pre-defined monetary fee." Following exposure to the text-based stimuli, participants rated their intentions to provide assets in the sharing system on a single item, 7-point Likert scale question ranging from "1 = *very unlikely*" to "7 = *very likely*."

A sample of 340 U.S. participants was recruited online with the help of Amazon's crowdsourcing platform Mechanical Turk where respondents voluntarily answered a requested survey against compensatory payment (\$1.00). Three hundred and sixteen subjects were left for the analysis (146 female, *Age*=38.1) after respondents who failed attention checks regarding the stimuli were removed. To test the effect of reciprocity on the intention to provide one's assets for sharing, regression analysis with the independent variable *reciprocity* (contrast coded: generalized [1] vs. barter-

balanced [2] vs. money-balanced [3]) was conducted. The analysis revealed a significant main effect of the reciprocity manipulation on the dependent variable ($M_{\text{Generalized}} = 3.62$ vs. $M_{\text{Barter-Balanced}} = 4.22$ vs. $M_{\text{Money-Balanced}} = 4.82$; $F[1,315]=11.01$, $p=.000$). Results of the pairwise comparison analysis via Post-Hoc-Test under the assumptions of Tukey HSD show significant differences between the groups of generalized and barter-balanced reciprocity ($p=.045$), generalized and money-balanced reciprocity ($p=.000$), and money-balanced and barter-balanced reciprocity ($p=.040$). Participants reported the weakest intentions to provide their personal belongings to other consumers in the CC scheme when they expected to receive no compensation and were most eager to participate as providers against the payment of a monetary fee.

Study 2

A second study was designed to extend the experimental design of Study 1 by introducing a second scheme characteristic, i.e., the type of market intermediary, next to reciprocation as explained in Figure 1. A 3x2 between-subjects' design (reciprocity: generalized vs. barter-balanced vs. money-balanced; market intermediary: profit vs. non-profit) was subsequently created.

The reciprocation stimuli of Study 2 conceptually replicated those designed for Study 1. A second manipulation was then introduced, one that altered the market intermediary type of the sharing scheme by describing that "the system is managed by a commercial company that wants to make profit with the scheme" (for profit) versus that "the system is managed by a team of volunteers who do not want to make profit with the scheme" (non-profit). The constructs of system trust and perceived risk were introduced as potential mediators of the assumed effect of the two independent variables on the intention to provide assets for sharing (Molm et al., 2000). Measures of intention to provide were identical to those of Study 1 and were followed by two item batteries assessing the degree to which respondents perceived the sharing system as trustworthy (4 items, adapted from Benlian & Hess, 2011) and as entailing a potential risk (3 items, adapted from Jarvenpaa, Tractinsky, & Vitale, 2000). Levels of system trust were indicated on four scales ranging from "1 = *very unlikely*" to "7 = *very likely*" and included statements such as "I believe that the sharing system would act in my best interest." Perceived risk was measured on scales ranging from 1 (significant opportunity, high potential for gain, very positive situation) to 10 (significant risk, high potential for loss, very negative situation).

Following a procedure similar to that of Study 1, 317 respondents (130 female, Mage = 35) recruited using Amazon's Mechanical Turk were left for analysis after 21 were removed from the sample due to failure of attention checks regarding the stimuli. A small monetary reward (\$1.00) was given for their participation.

Respondents from the self-selecting sample were randomly assigned to one of the six experimental conditions. The results of the regression analysis replicated the significant main effect found in Study 1 ($M_{\text{Generalized}} = 3.59$ vs. $M_{\text{Barter-Balanced}} = 3.93$ vs. $M_{\text{Money-Balanced}} = 4.25$; $F[1,316] = 6.952$, $p = .009$). Further results revealed a significant main effect of market intermediary type on intentions to provide assets for sharing ($F[1,316] = 6.525$, $p = .011$). These show a stronger intention to participate as a provider when the sharing scheme is managed by a team of volunteers than when it is mediated by a for-profit company ($M_{\text{Profit}} = 3.66$ vs. $M_{\text{Non-Profit}} = 4.16$).

Two mediation analyses (Preacher & Hayes, 2008) were then performed to test whether system trust was able to mediate the effect of market intermediary type on the intention to provide one's private belongings for sharing and if perceived risk was able to mediate the effect of reciprocity type on the same. The two hypothesized routes—via affective and cognitive processing—were thus analyzed following the INDIRECT mediation analysis approach, applying 5000 bootstrapping samples and a confidence interval of 95% (Preacher & Hayes, 2008). The results confirmed the presented theorizing: system trust mediates the effect of market intermediary on intentions while perceived risk mediates the effect of reciprocity type on intentions. Decreased perceptions of risk and increased trust in the system thus influence stronger intentions to provide a product for sharing. A summary of the results of the mediation tests of Study 2 is illustrated in Figure 2.

CONTRIBUTIONS

Research on the collaborative aspects of the sharing economy is scarce for now but is developing rapidly. As a contribution to the growing body of literature on consumer behavior in the sharing economy (e.g., Botsman & Rogers, 2011; Belk, 2014; Finley, 2013), this study offers one of the first initiatives in investigating the *provider's* perspective in consumer-to-consumer collaborative consumption schemes. Its results thus offer both theoretical and managerial contributions toward a better understanding of the sharing economy. From a theoretical perspective, this paper

advances prior literature by identifying system trust and perception of risk as key processes that foster providers' participation in collaborative consumption. The study thus finds that the enhancement of system trust and risk reduction is likely to strengthen consumers' willingness to participate as providers in a sharing platform, thereby extending prior theoretical contributions on the concept of trust and risk to the new peer-to-peer context of collaborative consumption. Moreover, while this study empirically confirms the key role of system trust as a mediating variable that explains the effect of market intermediary type on intention to provide assets for sharing, trust in the providing system itself appears to be a pivotal emotional construct that further insures and increases consumers' intention to participate in peer-to-peer schemes as providers, particularly when a non-profit rather than a for-profit market intermediary is involved. To add to this rationale, perceived risk was identified as a second cognitive construct that explains the nature of the effect of reciprocity type on the intention to provide goods for sharing within a CC scheme. Consumers may indeed weigh the risks (e.g., damaging or loss of shared goods, interpersonal disputes, loss of time, etc.) and benefits (e.g., additional revenue, social interaction, self-enhancement, etc.) of their participation before making their decision.

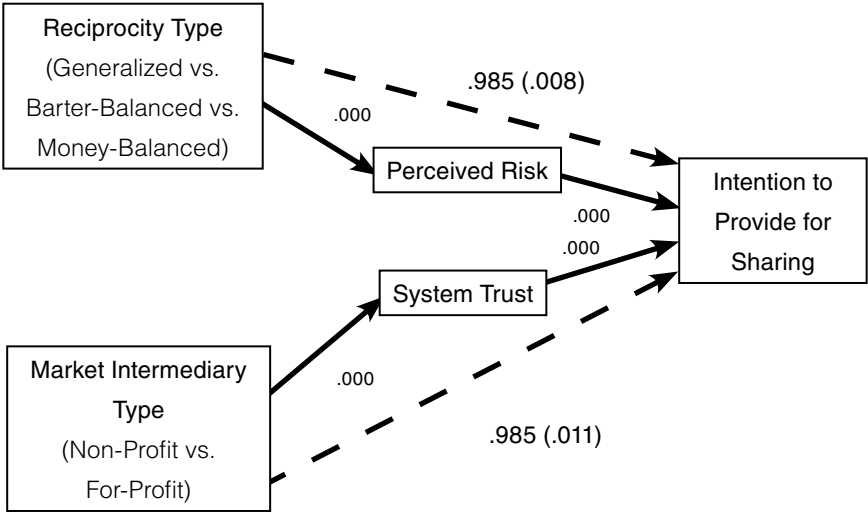


Figure 2: Mediation results of Study 2.

From a managerial perspective, this paper provides evidence for the particular importance of reciprocity and market intermediary types. Based on our findings,

consumers appear to be the most willing to provide their personal belongings for sharing in a CC scheme that relies on a money-balanced reciprocity approach and which at the same time is enabled by a non-profit market intermediary. Results indicate that balanced reciprocity is more attractive from the provider's perspective than is generalized reciprocity while money (e.g., the payment of a monetary fee) has a more positive impact upon intentions to provide for sharing than does barter (e.g., access to another good or service). This suggests that monetization as a standardized economic system of exchange is the most effective way to stimulate participation in CC schemes. In sum, this research indicates that it may be valid for consumer-to-consumer platform managers to foster non-commercial activities and escape the market given that a non-profit scheme is preferable. Despite emphasizing non-profits, however, our results suggest overall that an advantage to the scheme may be to offer compensation rather than be based on the more altruistic idea of generalized reciprocity. A non-profit intermediary and the provision of (monetary) compensation should prove to be more likely both to enhance trust in the system and to reduce the risks involved in participating in the scheme.

From a global sustainability perspective, identifying ways to improve providers' intention to participate in sharing is particularly relevant considering the need to make sustainable practices more widespread by avoiding waste, enhancing the recirculation of products, and reducing new purchases. To foster the availability of underused assets in collaborative consumption exchanges, consumers need to be willing to offer their private assets (e.g., cars, homes, appliances, tools, etc.) for sharing with others. In this light, incorporating monetary compensation in non-profit collaborative consumption schemes offers promising ways for fostering consumer-to-consumer sharing that should in turn increase the *supply* of privately owned, underused assets and reduce material consumption, wasteful behavior, and disposal decisions. Thus, while demand for shared goods and temporary access to cars, holiday accommodations, or tools is paramount as mirrored in the significant growth of the sharing economy (PwC, 2015), sustainability managers need to secure a global *supply* of privately-owned assets to be able to respond to this growing demand.

LIMITATIONS AND FUTURE RESEARCH

This paper entails a series of limitations that pave the way, however, for future research projects. First, the results are based on two samples of respondents from the U.S. who were recruited through Amazon's crowdfunding platform Mechanical Turk and thus may not be representative of the international population of participants in the sharing economy. Second, although the authors tried to develop realistic examples, the scenario-based approach that was used to manipulate reciprocity and market mediation may have appeared to be too abstract for some respondents. Third, the originality of this work was to focus on consumers as *providers*, yet C2C sharing schemes may be regarded from the perspectives of both users and providers. A next step, then, that may nonetheless prove worthwhile could include investigating consumers as users within the proposed framework. Finally, only one exemplary case of CC (i.e., a C2C local sharing scheme involving personal possessions) was investigated in this paper, thus leaving room for exploring other B2C and C2C sharing systems that involve other goods or services.

REFERENCES

- Acquier, A., Daudigeos, T., & Pinkse, J. 2017. Promises and paradoxes of the sharing economy: An organizing framework. *Technological Forecasting and Social Change*, 125: 1–10.
- AirBnB. 2017. *Vacation rentals, homes, experiences & places*. Available at <https://www.airbnb.com> (accessed September 6, 2017).
- Bardhi, F., & Eckhardt, G. M. 2012. Access-based consumption: The case of car sharing. *Journal of Consumer Research*, 39(4): 881–898.
- Bauwens, M. 2005. The political economy of peer production. *CTheory*, 12-1.
- Belk, R. 2010. Sharing. *Journal of Consumer Research*, 36(5): 715–734.
- Belk, R. 2014. You are what you can access: Sharing and collaborative consumption online. *Journal of Business Research*, 67(8): 1595–1600.

- Benkler, Y. 2017. Peer production and cooperation. In J. M. Bauer & M. Latzer (Eds.), *Handbook on the economics of the internet*: 1–29. Cheltenham, UK: Edward Elgar Publishing.
- Benlian, A., & Hess, T. 2011. The signaling role of IT features in influencing trust and participation in online communities. *International Journal of Electronic Commerce*, 15(4): 7–56.
- Benlian, A., & Hess, T. 2014. Creating trust and participation in online communities with IT features: The technology-trust-participation model. In J. M. Leimeister & B. Rajagopalan (Eds.), *Virtual communities*: 17–35. Armonk, NY: M. E. Sharpe.
- Bialski, P. 2009. *Intimate tourism: Enquête dans un réseau d'hospitalité*. Limoges, FR: Solilang.
- Blau, P. M. 1964. *Exchange and power in social life*. Transaction Publishers.
- Böcker, L., & Meelen, T. 2017. Sharing for people, planet or profit? Analysing motivations for intended sharing economy participation. *Environmental Innovation and Societal Transitions*, 23: 28–39.
- Botsman, R., & Rogers, R. 2011. *What's mine is yours: How collaborative consumption is changing the way we live*. London: HarperCollins.
- Campbell Mithun. 2012. *National study quantifies the "Sharing Economy" movement*. Available at www.prnewswire.com/news-releases/national-study-quantifies-the-sharing-economy-movement-138949069.html.
- Chircu, A. M., Davis, G. B., & Kauffman, R. J. 2000. Trust, expertise, and e-commerce intermediary adoption. *AMCIS 2000 Proceedings*, 405.
- Cohen, B., & Kietzmann, J. 2014. Ride on! Mobility business models for the sharing economy. *Organization & Environment*, 27(3): 279–296.
- Cohen, D. 2006. *Trois leçons sur la société post-industrielle*. Paris: Seuil.

- Decrop, A., & Degroote, L. 2014. Le couchsurfing: Un réseau d'hospitalité entre opportunisme et idéalisme. *Téoros: Revue de recherche en tourisme*, 33(1): 119–128.
- Decrop, A., Del Chiappa, G., Mallargé, J., & Zidda, P. 2018. "Couchsurfing has made me a better person and the world a better place": The transformative power of collaborative tourism experiences. *Journal of Travel & Tourism Marketing*, 35(1): 57–72.
- Dredge, D., & Gyimóthy, S. 2015. The collaborative economy and tourism: Critical perspectives, questionable claims and silenced voices. *Tourism Recreation Research*, 40(3): 286–302.
- eMarketer. 2018. **Number of sharing economy users in the U.S. 2016–2021**. Available at www.statista.com/statistics/289856/number-sharing-economy-users-us.
- Finley, K. 2013. *Trust in the sharing economy: An exploratory study*. Centre for Cultural Policy Studies, University of Warwick, UK.
- Forbes. 2018. **As a rare profitable unicorn, Airbnb appears to be worth at least \$38 billion**. Available at www.forbes.com/sites/greatspeculations/2018/05/11/as-a-rare-profitable-unicorn-airbnb-appears-to-be-worth-at-least-38-billion/#516c13932741.
- Frenken, K. 2017. Political economies and environmental futures for the sharing economy. *Philosophical Transactions of the Royal Society A: Mathematical, Physical and Engineering Sciences*, 375(2095): 20160367.
- Gefen, D. 2000. E-commerce: The role of familiarity and trust. *Omega*, 28(6): 725–737.
- Gefen, D., Rao, V. S., & Tractinsky, N. 2003. The conceptualization of trust, risk and their electronic commerce: The need for clarifications. In *Proceedings of the 36th annual Hawaii international conference on system sciences 2003*: 10–20. IEEE Xplore.

- Gollnhofer, J. F., Hellwig, K., & Morhart, F. 2016. Fair is good, but what is fair? Negotiations of distributive justice in an emerging nonmonetary sharing model. *Journal of the Association for Consumer Research*, 1(2): 226–245.
- Graul, A. 2017. *Sharing with friends or strangers? How attachment avoidance impacts consumers' intention to share personal possessions*. Doctoral dissertation, Leeds University Business School, UK.
- Habibi, M. R., Kim, A., & Laroche, M. 2016. From sharing to exchange: An extended framework of dual modes of collaborative nonownership consumption. *Journal of the Association for Consumer Research*, 1(2): 277–294.
- Hamari, J., Sjöklint, M., & Ukkonen, A. 2016. The sharing economy: Why people participate in collaborative consumption. *Journal of the Association for Information Science and Technology*, 67(9): 2047–2059.
- Heinrichs, H. 2013. Sharing economy: A potential new pathway to sustainability. *GAIA-Ecological Perspectives for Science and Society*, 22(4): 228–231.
- Hellwig, K., Morhart, F., Girardin, F., & Hauser, M. 2015. Exploring different types of sharing: A proposed segmentation of the market for “sharing” businesses. *Psychology & Marketing*, 32(9): 891–906.
- Ikkala, T., & Lampinen, A. 2015. Monetizing network hospitality: Hospitality and sociability in the context of Airbnb. In *Proceedings of the 18th ACM conference on computer supported cooperative work & social computing*: 1033–1044. New York: ACM.
- Jarvenpaa, S. L., Tractinsky, N., & Vitale, M. 2000. Consumer trust in an Internet store. *Information Technology and Management*, 1(1–2): 45–71.
- John, N. A. 2013. The social logics of sharing. *The Communication Review*, 16(3): 113–131.
- Kumar, V., Lahiri, A., & Dogan, O. B. 2018. A strategic framework for a profitable business model in the sharing economy. *Industrial Marketing Management*, 69: 147–160.

- Martin, C. J. 2016. The sharing economy: A pathway to sustainability or a nightmarish form of neoliberal capitalism? *Ecological Economics*, 121: 149–159.
- Möhlmann, M. 2015. Collaborative consumption: Determinants of satisfaction and the likelihood of using a sharing economy option again. *Journal of Consumer Behaviour*, 14(3): 193–207.
- Molm, L. D., Takahashi, N., & Peterson, G. 2000. Risk and trust in social exchange: An experimental test of a classical proposition. *American Journal of Sociology*, 105(5): 1396–1427.
- Ndubisi, N. O., Ehret, M., & Wirtz, J. 2016. Relational governance mechanisms and uncertainties in nonownership services. *Psychology & Marketing*, 33(4): 250–266.
- Nijland, H., & van Meerkerk, J. 2017. Mobility and environmental impacts of car sharing in the Netherlands. *Environmental Innovation and Societal Transitions*, 23: 84–91.
- Nolan Jr., S. D. 1976. Tourists' use and evaluation of travel information sources: Summary and conclusions. *Journal of Travel Research*, 14(3): 6–8.
- Palgan, Y. V., Zvolska, L., & Mont, O. 2017. Sustainability framings of accommodation sharing. *Environmental Innovation and Societal Transitions*, 23: 70–83.
- Preacher, K. J., & Hayes, A. F. 2008. Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods*, 40(3): 879–891.
- Prendergast, C., & Stole, L. 2001. *Monetizing social exchange*. Available at SSRN 2396093 (accessed March 3, 2016).
- PwC. 2015. *The sharing economy*. Available at https://www.pwc.fr/fr/assets/files/pdf/2015/05/pwc_etude_sharing_economy.pdf.
- Rudmin, F. 2016. The consumer science of sharing: A discussant's observations. *Journal of the Association for Consumer Research*, 1(2): 198–209.

- Sacks, D. 2011. The sharing economy. *Fast Company*, 155(1): 88–93.
- Sahlins, M. D. 1972. *Stone age economics*. Transaction Publishers.
- Schor, J. B., Fitzmaurice, C., Carfagna, L. B., Attwood-Charles, W., & Poteat, E. D. 2016. Paradoxes of openness and distinction in the sharing economy. *Poetics*, 54: 66–81.
- Sibai, O., De Valck, K., Farrell, A. M., & Rudd, J. M. 2015. Social control in online communities of consumption: A framework for community management. *Psychology & Marketing*, 32(3): 250–264.
- Simmel, G. 1990. *The philosophy of money* (2nd ed.). London: Routledge.
- Stokes, K., Clarence, E., Anderson, L., & Rinne, A. 2014. *Making sense of the UK collaborative economy*. London: Nesta.
- Wilhelms, M. P., Henkel, S., & Falk, T. 2017. To earn is not enough: A means-end analysis to uncover peer-providers' participation motives in peer-to-peer carsharing. *Technological Forecasting and Social Change*, 125: 38–47.
- Woskow, D. 2014. *Unlocking the sharing economy: An independent review*. London: Department for Business, Innovation and Skills.
- Wu, X., & Zhi, Q. 2016. Impact of shared economy on urban sustainability: From the perspective of social, economic, and environmental sustainability. *Energy Procedia*, 104: 191–196.
- Zervas, G., Proserpio, D., & Byers, J. W. 2017. The rise of the sharing economy: Estimating the impact of Airbnb on the hotel industry. *Journal of Marketing Research*, 54(5): 687–705.

APPENDICES

Variable	Operationalization	C.A.
System Trust	I believe that the sharing system would act in my best interest.	0.918
	The sharing system is truthful in its dealings with me.	
	The sharing system would keep its commitments.	
	The sharing system is sincere and genuine.	
Perceived Risk	How would you characterize the decision of whether [or not] to provide some of your objects in the sharing system described above?	0.846
	Significant opportunity-Significant risk	
	High potential for loss-High potential for gain*	
	Very positive situation-Very negative situation	
Intention to Provide for Sharing	How likely would you be to provide some of your possessions (objects that you do not use frequently) in the sharing system described above?	N.A.

Appendix 1: Variables and operationalizations. *indicates reverse coding.

		Mean	SD	1	2	3
1	Intention	3.92	1.83	1.000	.700**	-.698**
2	System Trust	4.48	1.25		1.000	-.724**
3	Risk	4.39	1.30			1.000

Appendix 2: Means, standard deviations, and Pearson-correlations for Study 2.

** Correlation is significant at the 0.01 level (2-tailed).

1) Imagine that a new sharing system is introduced in the city you live in. It allows participants to share some of their objects (e.g., a drill, a tent, a bike) with each other through the Internet. Participants upload pictures of the specific objects they own and want to share with other members on the sharing platform. Members who participate in the sharing system can then easily see the objects that other members have to offer and borrow them. The system is managed by a commercial company that wants to make a profit with the scheme.

If you want to participate as a provider, you can opt to provide objects that you own and do not use frequently to the members of the commercial sharing system for short-term lending over the sharing platform (e.g., for one day). The participant that provides the object(s) will not get any compensation for such sharing; the provision would be completely for free.

2) Imagine that a new sharing system is introduced in the city you live in. It allows participants to share some of their objects (e.g., a drill, a tent, a bike) with each other through the Internet. Participants upload pictures of the specific objects they own and want to share with other members on the sharing platform. Members who participate in the sharing system can then easily see the objects that other members have to offer and borrow them. The system is managed by a commercial company that wants to make a profit with the scheme.

If you want to participate as a provider, you can opt to provide objects that you own and do not use frequently to the members of the commercial sharing system for short-term lending over the sharing platform (e.g., for one day). As compensation for such sharing, the participant that provides the object(s) would have the option to similarly borrow some of the selected objects that other members have available for short-term lending.

3) Imagine that a new sharing system is introduced in the city you live in. It allows participants to share some of their objects (e.g., a drill, a tent, a bike) with each other through the Internet. Participants upload pictures of the specific objects they own and want to share with other members on the sharing platform. Members who participate in the sharing system can then easily see the objects that other members have to offer and borrow them. The system is managed by a commercial company that wants to make a profit with the scheme.

If you want to participate as a provider, you can opt to provide objects that you own and do not use frequently to the members of the commercial sharing system for short-term lending over the sharing platform (e.g., for one day). As a compensation for such sharing, the participant that provides the object(s) will receive payment of a pre-defined monetary fee.

Appendix 3: Scenario examples for Study 2.

Alain Decrop is Full Professor of marketing at the Faculty of economics, social and management sciences at the University of Namur, Belgium. He is the Director of NADI-CeRCLe (Center for Research on Consumption and Leisure) and a member of CCMS (Center on Consumers and Marketing Strategy). Ph.D. in Business Administration, economist, and historian, he teaches classes on marketing, consumer behavior, and qualitative methods. His research interests focus on consumer behavior and contemporary consumption phenomena (including collaborative consumption), with applications most often related to tourism and leisure. He has published a large number of books, chapters, and articles in top-tier journals around these topics.

Antje Ricarda Helena Graul is an Assistant Professor of Marketing at Utah State University. She received her Ph.D. in Marketing from the University of Leeds, UK. Her research interests lie in the area of consumer decision-making, value perception, and attachment. She investigates its application to motivations for anti-consumption and consumer sharing.